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Forbes

The new unrest on the Indian reservations

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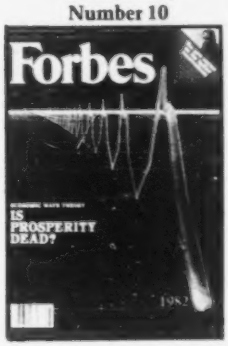

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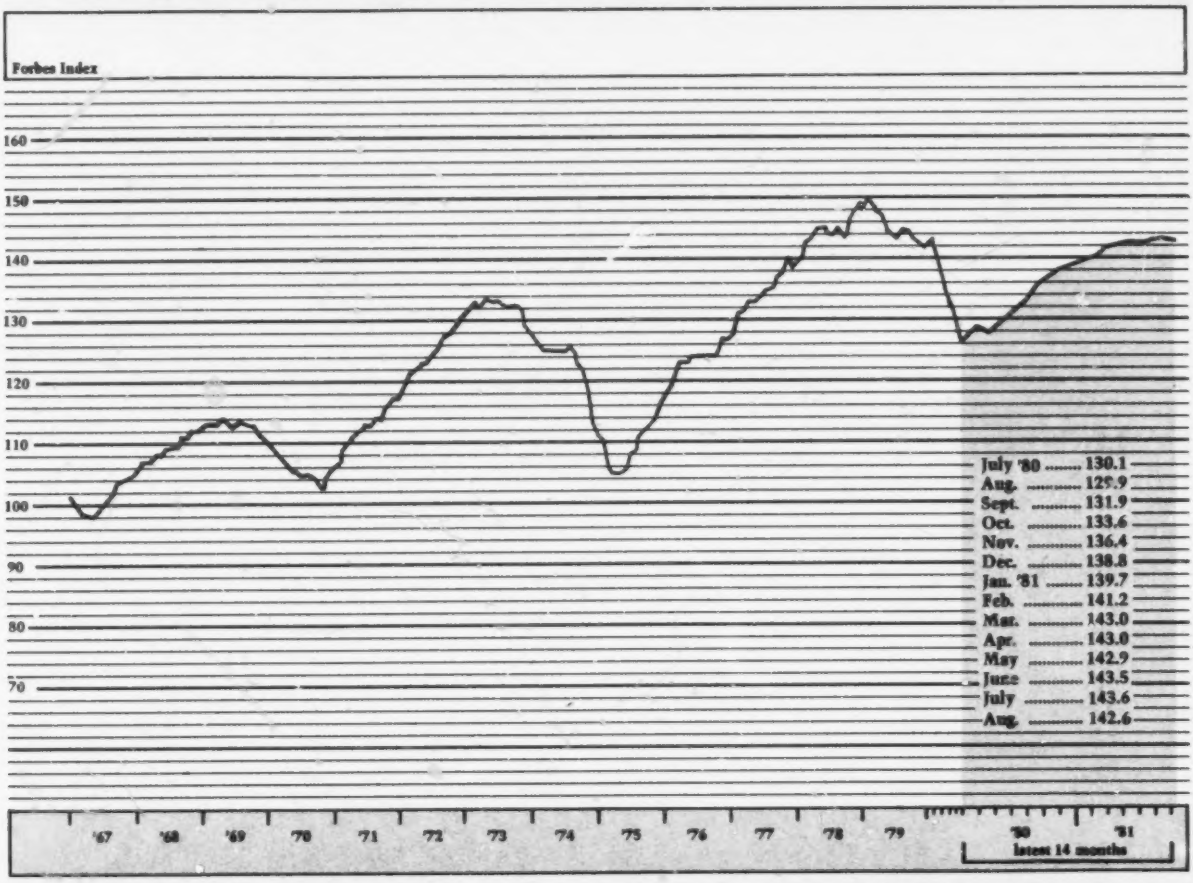
The Forbes Index



The Forbes Index Components

Bad news on the way? The latest Forbes Index is unchanged from the previous month. However, three components of the September index indicate a recession might be imminent. Industrial production fell 0.8% and new housing starts were off sharply. There was also a slowdown in the growth of retail sales. Unless the other five index components contribute large gains, the September index is likely to be lower.

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements:

Total industrial production

New claims for unemployment compensation

The cost of services relative to all consumer prices

The level of new orders for durable goods compared with manufacturers' inventories

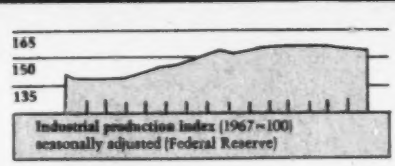
Total retail sales

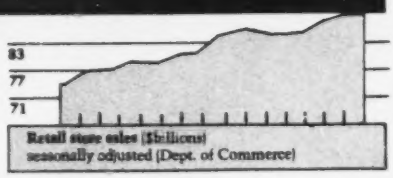
New housing starts

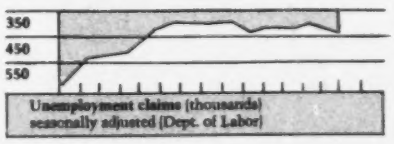
Personal income

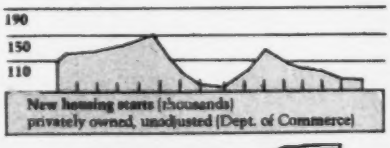
The change in the amount of consumer installment debt outstanding

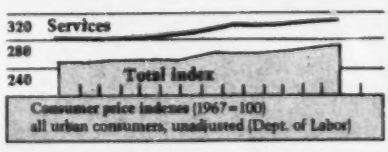
To measure these eight elements, Forbes monitors 11 series of U.S. government data. The last 14 months' data for each series is presented at right.

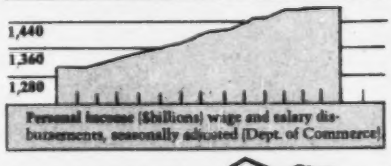


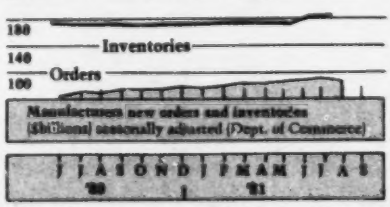


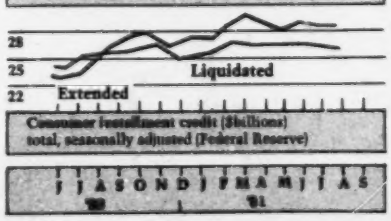












With an indirect assist from OPEC, the American Indians have a new chance to deal with their ancient problems. They have learned a lot. Have they learned enough?

New hope on the reservations

By James Cook

"EVERY TIME I see an Arab," says Sylvester Tinker, principal chief of Oklahoma's Osage tribe, "I don't care who he is or what he looks like, I want to run up and kiss him, because he has done more for the Osage people in 4 years than the federal government has done in 150."

The Osages are the U.S.' largest Indian oil producers, and since 1973, when OPEC started driving up energy prices, the Osages' oil and gas income has gone from $6 million to $70 million, while that of the rest of the oil-and-gas-producing tribes has gone from $18.3 million to over $99 million. And this is just the beginning. With the end of government price controls, Navaho oil and gas income has doubled in the past year, and between decontrol and new production, one official of the Bureau of Indian Affairs estimates, tribal income could triple over the next four years.

It is one of history's more stunning ironies. The 51.9 million acres in the U.S. reserved for the Indians were lands the white man could not see any conceivable reason to reserve for himself. They were too wet or too dry, too barren or too remote. Now, at a time when the U.S. seems to be running out of practically everything, the 272 federally recognized Indian reservations constitute one of the largest and least known mineral repositories on the continent—nearly 5% of the U.S.' oil and gas, one-third of its strippable low-sulfur coal, one-half of its privately owned uranium.

In Oklahoma, the Osages settled on some scruffy, hilly land that turned out to cover the legendary Burbank oilfield, where oil was first discovered in the 1920s. Elsewhere, tribes were solidly established in some of the most important energy-producing regions in the U.S.: the Overthrust Belt and Anadarko and Williston basins in oil, the Fort Union, Powder River, Black Mesa and San Juan districts in coal and the famed Grants mineral belt in uranium. "From a national standpoint," says David Baldwin, an Osage who heads the technical division of the BIA's Office of Energy & Minerals, "you are talking in the neighborhood of 25% of the U.S.' mineral wealth located on Indian lands."

An exaggeration? Perhaps. But nobody really knows. Accidents of history and cultural bias, elements of greed and fear and the workings of fate and inertia—all have conspired thus far to keep much of Indian land unexplored. But the same forces now are conspiring to force U.S. Indians to take a fresh look at where they are and where they—not the white man—wish to go.

In almost every tribe, there are progressives who favor development and traditionalists who oppose it, and the balance shifts from tribe to tribe. The Navahos out in Arizona and New Mexico are aggressively pro development. The neighboring Hopis are not. In Montana the pro development Crows have nonetheless refused to permit uranium prospecting for fear it would desecrate their sacred mountains. "We are at heart in harmony with nature," says Crow tribal Secretary Dan Hogan. "We do respect the Almighty for giving us these things."

But events are moving fast on U.S. reservations. Mineral royalties, already a larger source of tribal revenue than either farming or ranching, yielded the tribes nearly $180 million last year, not counting bonuses. Of that sum, $160 million came from oil and gas, much of it (37.5%) from the Osage reservation, the rest mainly from the Navaho, Jicarilla, Wind River and Uintah and Ouray reservations. Another $20 million was derived from hard minerals, mostly uranium and coal, mostly from the Navaho, Crow, Laguna and Spokane reservations.

The tribes also control 44 million acres of range land, 13 million acres of forest (5 million of them commercially usable) and 1.2 million acres of crop lands, including most of the U.S.' remaining top-grade underdeveloped agricultural land. The 183-member Agua Caliente tribe nets a good $5 million a year from its 25,000 acres of real estate in and around Palm Springs, including some of that famous resort's most exclusive hotels. Some tribes have cashed in on their special legal status, peddling tax-free cigarettes, as the Puyallup tribe does in Tacoma, or running big-time bingo games, as the Seminoles do in Hollywood, Fla. Others have capitalized on another resource every bit as intangible—treaty obligations entered into by the U.S. a century or more ago and subsequently dishonored. Thus, Maine's Penobscot and Passamaquoddy tribes have picked up $81.5 million for lands illegally confiscated 200 years ago; the Sioux, $122 million for the expropriation of the Black Hills in 1877. Now, some tribes are contemplating projects so huge that a single one—the Crows' coal gasification project, for example—would represent more of a capital investment than all other Indian-owned investments combined.

Condemned by history and government policy to cultural and geographic isolation, the Indian tribes were singularly ill-equipped to capitalize on the changes OPEC wrought. As the first European explorers quickly discovered, most of them had only the haziest notion of private property. All things were, by and large, held communally by the tribe. What sense of ownership there was came from use rather than from law. And profit? That was as alien a notion as selling

the earth, sky or air. You shared the things you had with one another, you didn't husband them to yourself.

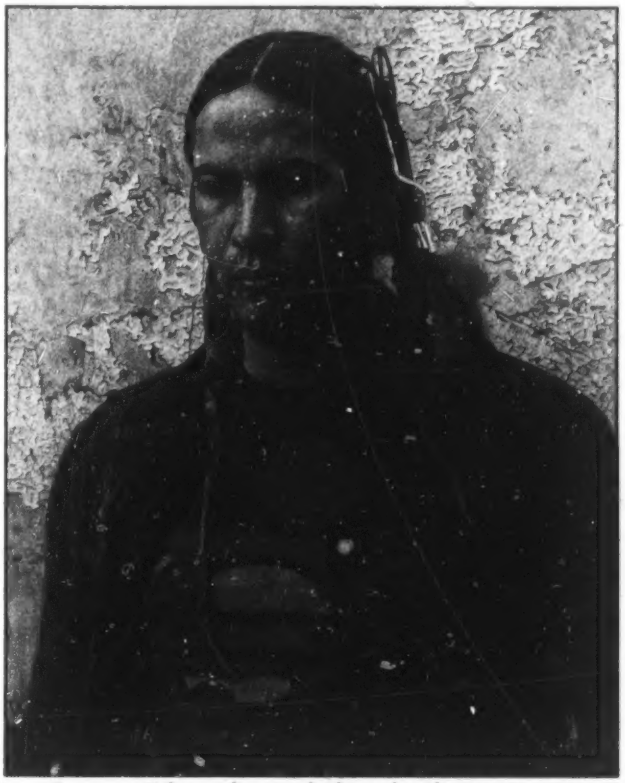
Unlike the Europeans who conquered them, moreover, the American Indians possessed an extraordinary diversity of culture, language and tradition. There were democracies and theocracies, matriarchies and patriarchies. Some tribes were nomadic, others were village dwellers. Some were farmers, others were stockmen, herders or hunters. These differences persist, so that a Crow and a Zuni probably share less of a common heritage than do a Spaniard and a Swede.

But they have paid a price for these differences. When Henry Hudson first parlayed with the Mohawks in 1609, there were probably over 10 million Indians in all of North America. Today, there are only 1.4 million, half of them on reservations. Unlike the blacks or Hispanics or Jews, who identify themselves as blacks, Hispanics, Jews, few Indians identify as "Indians," but rather as Navahos, Mohawks or Sioux. What little political influence they have derives less from collective clout than from good intentions in Washington. As a result, they have become the U.S.' most disadvantaged minority, with a disproportionate number ill-housed, ill-educated, unhealthy, ill-paid and underemployed.

Like other underdeveloped but resource-rich peoples around the world, the tribes for years left it to outsiders to develop their resources. Indian oil and gas were the foundation of many of the U.S.' major oil companies—Phillips, Conoco and Getty, among others. Even today Indian uranium is basic to Kerr-McGee and Western Nuclear, Indian coal to Westmoreland Resources, Utah International and Gulf Minerals, and Indian phosphate to FMC and J.R. Simplot.

The tribes never used to worry much about what was done to develop their resources or what happened to the proceeds. But no more. The tribes are coming to believe—amid some bitter dissent—that they had better acquire some of the white man's values and skills, and quickly, or they will squander the inheritance history has left them.

The Laguna Pueblo of New Mexico have already had something of a vision of the future. After 25 years, Anaconda is closing down the Jackpile Mine, near Paguate, N.M., which is the largest open-pit uranium mine in the world. Though the Lagunas concede that they were paid, and paid well, for their mineral resources, they never prepared themselves for the day when the mine would be exhausted. In those 25 years, the Lagunas received millions of dollars in revenues, but there is little in the way of tangible ongoing assets to show for it. The result is that the tribe now faces the loss of its royalty income as well as some 500 jobs in the mine.



Other tribes might have faced similar problems if the price of oil had not risen so sharply. The Osages had been producing oil and gas since 1897, the Navahos since 1921, the Wind River tribes since 1943, Fort Berthold's since 1955. And production had already peaked out. But thanks to higher prices and technological advances, the decline has been stemmed, if not reversed. Osage production, for instance, had been dropping at 11% a year, but that trend was temporarily reversed, and production is now declining at only 1% or so a year. The prospects are still encouraging. Osage drilling permits have soared from fewer than 300 in 1973 to 1,192 last year.

In the past, the tribes have been no match for the giant corporations they have had to deal with in developing their resources. You hear stories of companies walking into council meetings and throwing a sack of cash down on the table to secure a lease, take it or leave it. "The oil company would present a big check to the tribal government," says Ross Swimmer, an Oklahoma banker who is also principal chief of the Cherokee nation, "and you thought it looked good until you found out it was maybe a tenth of what it ought to have been." That's why tribes like the Blackfeet and Jicarillas, the Chippewas and the Navahos in recent years declared partial moratoriums on mineral development—to gain time for planned development, or to avoid making decisions they felt totally incompetent to make.

Five hundred years of that sort of treatment does not exactly encourage self-confidence. Says one tribal officer: "You get so a tribal chairman feels, if he walks into a room with the company president and all those high-powered attorneys and staff, he's going to walk out without his pants."

But now fear and suspicion are giving way to activism. "It does no good to complain and be bitter about what they have taken away from us," says Navaho Chairman* Peter MacDonald. "We just want to keep what we have and make the best of it." A major, concrete step in a new direction was the formation, in 1977, of the Council of Energy Resource Tribes (CERT), founded by MacDonald in the wake of a 1975 meeting with Frank Zarb, then head of the Federal Energy Administration. At one time CERT was billed as the Indian OPEC, and even hired economist Ahmed Kooros, Iran's former deputy minister for finance and oil, to do for the Indians what he had done for the Shah of Iran.

The OPEC analogy was foolish, but the Third World analogy was pretty much on the mark, and CERT set about building the financial and technical expertise to enable the tribes to

*Most tribes stopped using the title "Chief" back in the 1930s.

Tribal treasure

The U.S.' Indian reservations may account for only 2.4% of the land area of the lower 48 states, but they contain a disproportionate amount of the U.S.' natural resources—maybe 25% of its total mineral wealth—coal, oil and gas, and uranium mainly, much of it undeveloped. Of the 272 reservations in the U.S. (the gray areas on the map), most are thought to have some sort of mineral resource base, but the bulk of the Indians' resources is concentrated in the hands of not much more than a couple of dozen tribes. Given the sparse populations of most reservations, the wealth is rather unevenly distributed, and on many reservations the tribe itself controls only a fraction of its total lands. The rest of the land is owned by individual tribesmen, outsiders or the U.S. government. Each reservation block on the map lists the name of the reservation and tribe, area, percentage of tribal land ownership, population, developed and undeveloped resources, and mineral income.

1 Blackfeet
area: 950,643 acres (12.6%), pop.: 6,272
oil and gas
undeveloped coal
mineral income: $5 million (E)

2 Colville
area: 1 million acres (92.6%), pop.: 5,077
undeveloped molybdenum, uranium

3 Spokane
area: 137,002 acres (74.8%), pop.: 1,876
uranium
mineral income: $1 million (E)

4 Flathead (Salish, Kootenai)
area: 1.2 million acres (45.2%), pop.: 3,325
undeveloped oil and gas

5 Ft. Peck (Assinboine, Sioux)
area: 964,864 acres (24.2%), pop.: 5,131
oil and gas, undeveloped lignite
mineral income: $4.5 million

6 Ft. Berthold (Mandan, Hidatsa, Arikara)
area: 980,506 acres (4.5%), pop.: 3,052
oil and gas
undeveloped coal
mineral income: $1.4 million

7 Mole Lake (Chippewa)
area: 1,974 acres (65.8%), pop.: 290
undeveloped zinc, copper

8 Northern Cheyenne
area: 433,595 acres (60.5%), pop.: 3,152
undeveloped coal, oil and gas
mineral income: $353,000

9 Crow
area: 1.6 million acres (22.1%), pop.: 4,960
coal, undeveloped oil and gas, uranium
mineral income: $7.7 million

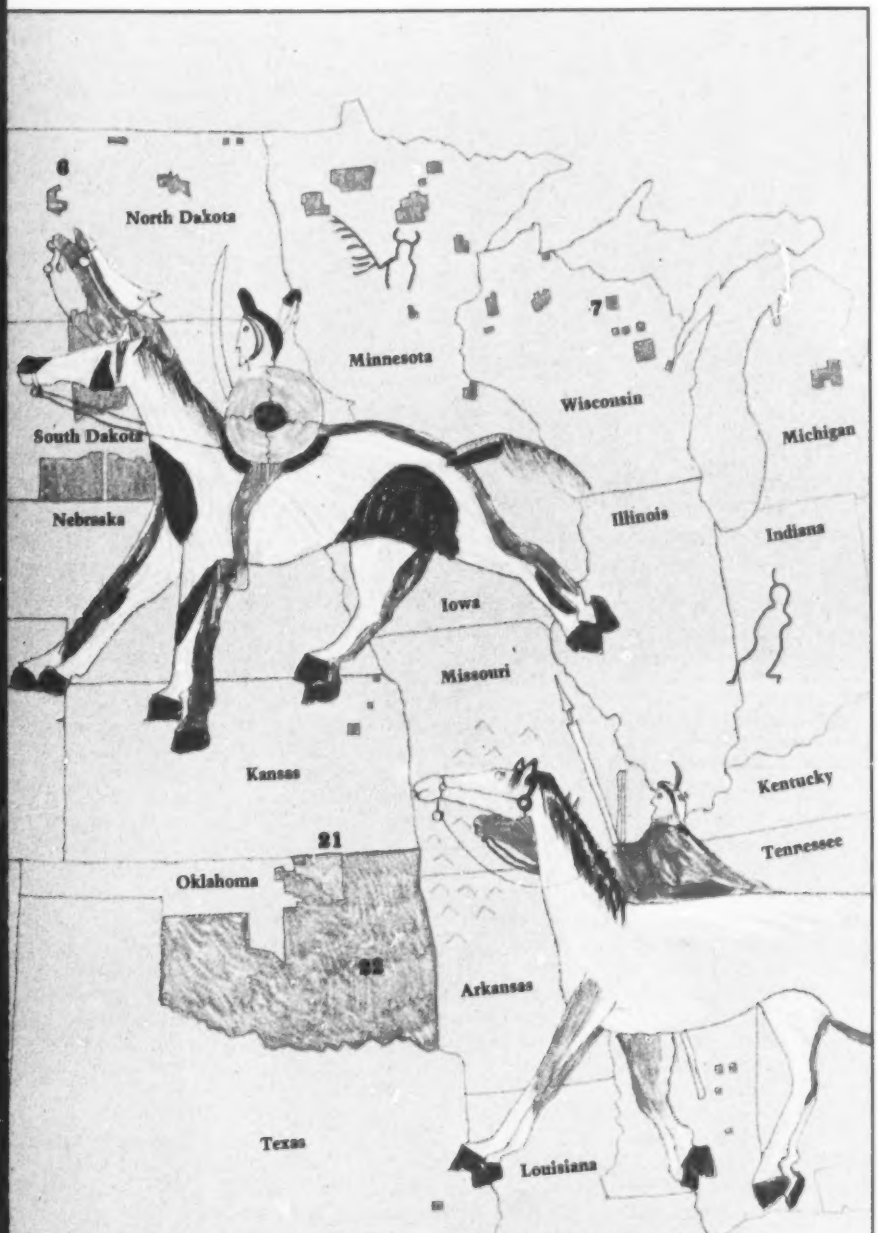
10 Ft. Hall (Shoshone, Bannock)
area: 524,014 acres (42.7%), pop.: 3,236
phosphate, undeveloped oil and gas
mineral income: $1.5 million

11 Wind River (Shoshone, Arapahoe)
area: 1.9 million acres (94.1%), pop.: 6,926
oil and gas, undeveloped coal,
phosphate, gypsum, uranium
mineral income: $17.4 million

12 Pyramid Lake (Paiute)
area: 475,083 acres (100%), pop.: 653
undeveloped copper, lead, zinc

13 Uintah & Ouray (Northern Ute)
area: 1 million acres (96.2%), pop.: 1,907
oil and gas
undeveloped coal, oil shale, tar sands
mineral income: $12.4 million (E)

14 Navaho
area: 14 million acres (92.5%), pop.: 159,124
oil and gas, coal, uranium
mineral income: $55 million (E)



15 Hopi
area: 2.5 million acres (100%), pop.: 8,292
coal, undeveloped uranium
mineral income: $2.1 million

16 Ute Mountain (Wiminuche Ute)
area: 595,787 acres (93.6%), pop.: 1,512
oil and gas
undeveloped coal, uranium
mineral income: $150,000 (E)

17 Southern Ute (Mouache & Capote Ute)
area: 307,110 acres (98.3%), pop.: 1,196
oil and gas
undeveloped coal, uranium
mineral income: $2.5 million

18 Jicarilla (Apache)
area: 742,315 acres (100%), pop.: 2,206
oil and gas
undeveloped coal, uranium
mineral income: $20 million (E)

19 Laguna Pueblo (Keresan)
area: 454,453 acres (90.7%), pop.: 6,067
uranium
undeveloped coal
mineral income: $2 million (E)

20 Papago
area: 2.9 million acres (98.6%), pop.: 16,033
copper
mineral income: $431,760

21 Osage
area: 217,639 acres, pop.: 10,144
oil and gas
mineral income: $70 million

22 Oklahoma (26 tribes, except Osage)
area: 831,453 acres (4.2%), pop.: 116,069
oil and gas
mineral income: $18.3 million

think intelligently about their own development and, most important of all, to provide the technical support, sophistication and expertise they needed to redress the negotiating balance with the big corporations.

As chairman of the Navahos as well as of CERT, MacDonald presides over the U.S.' largest and most powerful tribe—indeed, with 160,000 members, its only large tribe—and conducts his affairs accordingly. He pays himself $55,000 a year, surrounds himself with bodyguards, goes about the tribe's business in a Lincoln Continental or one of the three tribal airplanes, and runs a reservation roughly twice the size of Maryland that sprawls across three western states. The Navahos have more members and more resources than most of the other big tribes put together, and more political clout. They are not a bit shy about their size, their money or their power, and a lot of the smaller tribes simply don't like them for it. And they don't like Peter MacDonald either. "The little sonofabitch," says the Osages' Sylvester Tinker. "He's no good. He never thinks of anyone but himself. He never even thinks of the good of his own people."

MacDonald quite clearly thinks the Navahos offer the best model around. The discovery of oil on their land in 1921 sent the Navaho down the path of development, and since then the tribe has probably worked harder than any other to realize its resource potential. It has lured dozens of corporations to its lands—oil companies (including Texaco, Continental, Phillips and Superior), four coal companies (Utah, Gulf Minerals, Peabody and Consolidation), a major uranium producer (Kerr-McGee) and a number of others, including Mobil, Phillips and Exxon, that are currently prospecting. The reservation will produce 9 million barrels of oil this year, over 18 million tons of coal and 1.2 million pounds of uranium. It has more plans for the future than most of the other tribes put together—everything from *in situ* solution uranium mining to coal gasification. All this wealth and power sometimes leads to a high-handed attitude. "Just look at the Navahos," one oilman complains. "It's like dealing with the Iranians." Peter MacDonald, a compact, intense man, responds. "The companies don't know there's a nation here, a real government," he says. "You have to deal with all the laws and regulations of a government just as you would in Libya or Iran, Saudi Arabia or Indonesia."

There's something to that analogy about governments. In negotiating for the Indians, CERT has had to cope with the tribal democracy that often makes decision-making impossible for the Navahos. Tribal government is, to begin with, an alien institution, originally imposed by the U.S. government. Tribal members often ignore it or even oppose it as bitterly as they do the U.S. government itself. On the Hopi reservation, there's an underclass that won't vote in elections, that won't even accept basic government services—water, electricity—lest their acceptance somehow compromise them.

Tribal democracy involves decision-making by consensus, just as it does in Japan, only the decisions the tribes are called on to make these days are in areas in which they have little or no knowledge, skill or experience. So the consensus doesn't always gel, or last when it does. In the mid-Seventies Navaho dissidents seized the new El Paso-Consolidation strip mine near Burnham, N.M. for a few days and tried to stop its development. Three years ago they took over a Texaco pumping station in the Navaho oil fields near Aneth, Utah for several weeks and demanded concessions. MacDonald almost certainly had little sympathy with the dissidents, who obviously undercut his position with the companies, but publicly he appeared to endorse their grievances—rather like an Irish prime minister dealing with the I.R.A.

Tribal politics are further complicated by outsiders who have taken up the Indians as their special cause. "You've got outside special interests constantly bombarding the reservation," Peter MacDonald says, "environmentalists who want to see Indians continue to sit in their hogans weaving rugs and chopping wood, the unscrupulous multinationals who want to dig up your land and leave great gaping holes, and you're supposed to go on and chart a sensible course for the future."

But with CERT to give them ballast, the Navahos and many of the other tribes continue to do so, some in a big way. The Navahos, the Southern Utes and the Crows are each considering building 800-to-1,000-megawatt mine-mouth power plants to generate power for both reservation and utility use. The Navahos have talked periodically about more ambitious plans to build coal gasification or liquefaction plants. The Crows actually have a feasibility study under way to develop a $4 billion gasification plant in partnership with Pacific Lighting. If such ventures seem like pie in the sky, the development equivalent of Ciudad Trujillo or Brasilia, consider the Paraho-Northern Ute scheme to build an *in situ* oil shale project on the Uintah and Ouray reservation.

Even if oil shale and coal gasification remain pipe dreams, the tribes have made undeniable progress over the past few years in renegotiating old contracts—a potent source of revenue. In the early Seventies, as oil prices began to rise, the percentage royalty rose along with them, from an eighth (12.5%) to a seventh, and now, fairly commonly, a sixth (16.67%) and even, in many cases, three-sixteenths (18.75%).

But coal, copper, phosphate, uranium and other hard minerals were a different matter. They were generally leased at a flat royalty per ton. When the price of coal went to $10 and $20 a ton, the lessee continued to pay the same 10- or 15-cents-a-ton royalty it had paid when coal was $2. Navaho efforts to renegotiate became a growing problem. "It's not really fair that the landlord shouldn't share," one coal man concedes, "but when you base a power plant's economics on 15-cent coal, you can't change overnight. That's why the utilities don't want Navaho coal and why they regard it as an unstable source."

Navaho Chairman Peter MacDonald
The U.S.' largest tribe, the Navahos have done more to develop resources than any other tribe. But MacDonald wants at least a fair price for the tribe's assets.

But it wasn't only the Navahos who were dissatisfied. In Montana both the Crows and the Cheyennes had signed large coal leases back in the Sixties with a minimal 17.5-cents-a-ton royalty—the Crows with Westmoreland, Amax and Shell, the Cheyennes with Peabody. As the price of coal began to rise in the early Seventies, both tribes launched a series of legal attacks on the leases. Because of legal defects, the Department of Interior suspended the Cheyenne lease in 1974, the Crow lease in 1977.

In the meantime, MacDonald and the Navahos had succeeded in scoring what they thought was something of a coup. In renegotiating a lease on the Burnham mine that El Paso and Consolidation Coal were developing, they managed to get a percentage royalty—a minimum 8%—instead of the usual flat rate. But it proved to be a hollow victory. By then the going percentage rate on public lands was 12.5%. To MacDonald's embarrassment, the BIA threw out the lease as failing to meet federal standards. After that, 12.5% became the new standard for coal leases.

In the circumstances, MacDonald has also been trying to renegotiate some of the other 15-cents-a-ton leases the tribe signed in the Sixties—with Peabody at Black Mesa and Kayenta, with Utah International at Four Corners. But the ante keeps rising. The companies have agreed to the now-standard 12.5%, but both the Navahos and the Hopis, the Navahos' partners at Black Mesa, want more.

The immediate financial benefits aside, the negotiating climate for the tribes had begun to change and change decisively. With CERT to guide and counsel them, the tribes were no longer at the mercy of the BIA and the big corporations, and they began to act as if they had some negotiating strength on their side as well. The corporations were often appalled. Two years ago, when Kennecott demanded that the Colville tribe renegotiate its royalty downward on the Mount Tolman copper-molybdenum project, the Colvilles flatly said no. Despite the fact that Kennecott had spent 13 years investigating the prospect and that the project was finally about to go into development, the Colvilles put the project

up for competitive bidding, got nine offers and last spring settled on Amax. Over the life of the mine, the tribe calculates, the Amax lease will yield them $550 million more than they would have got otherwise.

The Navahos also recently opened the way for the tribes to exploit one of their most valuable and, until now, generally unrecognized resources—reservation rights of way.

When Atlantic Richfield's lease on the right of way for its Four Corners pipeline ran out a while back, the BIA routinely approved a new one that raised the 20-year payment from $240,000 to $280,000 plus a small annual rental. But with CERT's encouragement the Navahos came up with a new formula. Instead of basing the lease on the value of the land, they based it on the value of the commodity passing through the line. Result: Instead of a lump sum payment of $280,000, Arco agreed to an annual percentage payment that over a 20-year period, MacDonald figures, could yield between $70 million and $108 million. In the circumstances, Arco had little choice. The alternative was unthinkable: building a new pipeline across Glen Canyon.

What you can't get by renegotiating leases, as oil producers in the Middle East and elsewhere long ago demonstrated, you can sometimes get through taxation. In 1977 the Jicarilla Apaches asserted their powers as a quasi-sovereign state and imposed a severance tax on all oil and gas produced on the reservation: 5% of the market value per million Btu of gas, 29% per barrel of oil—enough to yield them a modest $2 million a year in additional income.

Around the same time, the Crows enacted a 25% severance tax of their own, this in response to a 30% tax the state of Montana imposed to discourage coal production. The Navahos, characteristically, went further, throwing the book at their resident corporations by enacting a leasehold tax, a possessory interest tax and a business tax that together would yield the tribe upwards of $30 million a year.

Seeing a powerful new weapon in the making, the companies have taken the Jicarillas, the Crows and the Navahos to court. The issue now rests before the Supreme Court, which is expected to rule on the matter during the current session. If the Supreme Court rules in favor of the tribes, or if Congress finally gets around to legislating the tribal power to tax, the tribes will have another promising new type of income. But obviously the taxing power has to be used carefully. Used harshly it could bring development to an end. "If we had to pay both the state and tribal taxes," says Westmoreland Resources' Vice President Ralph Moore of his company's coal operations on Crow land, "we would be out of business." For Phillips Petroleum, the prospect of Navaho taxes was so threatening it abandoned a 20-well drilling program on the reservation as uneconomic.

Undaunted by the consequences of such excesses, the Northern Cheyennes are devising an even more ingenious tax of their own, to be imposed not on production from their own reservation but on that of the lands surrounding them. Having abandoned their interest in coal development, the Cheyennes succeeded a while back in getting the Environmental Protection Agency to give the reservation a "Class I" air quality status. Air quality so designated cannot be subject to degradation of any kind. With their Class I status as a weapon, the Cheyennes hope to be able to exact tribute from various coal developments slated to take place around them. Montana Power has already agreed to train and employ Cheyennes at its huge Colstrip power plant, 15 miles north of the reservation, in exchange for the Cheyennes' dropping a lawsuit that would have delayed the construction of Colstrip units 3 and 4, already several years behind schedule.

This leaves the neighboring Crows, who are as pro development as the Cheyennes are anti, sputtering with outrage. "All Indians are in the same boat," says Crow Chairman Donald Stewart, "and they have one common enemy, which is usually themselves. Maybe we can talk the Cheyennes into redesignating their Class I air. But if we can't, I, as a leader, can't let my people suffer. If the Cheyennes won't budge, the Crows will designate their air Class I and shut down Billings and its refineries."

So far, however, only the Jicarillas have begun managing their resources themselves. A year or so ago, they bought a half dozen producing wells from Tenneco and now plan to build a propane refinery, too—at a cost of at least $2 million—to process and upgrade their royalty share of their reservation's natural gas production. In the future, says tribal Vice President Richard Tecube, the Jicarillas expect to do all the production work themselves. "We've placed a moratorium on new leases," he says, "and we're now involved only in joint ventures, successfully so far."

But the Jicarillas are virtually unique. Most of the tribes are poor, their managerial talents are limited and they haven't the capital to fund any resource development. It's not exactly that capital isn't available—most tribal leases involve large upfront bonuses that could theoretically supply seed money for tribal investment. The problem is that it's traditional to distribute those bonuses to the tribe on a per capita basis. "The tribal members hear about these investments," says one tribal financial officer, "and they start seeing dollar signs, so it's politically impossible to hold on to the funds." Last year, for instance, the Blackfeet, the Northern Cheyennes, the Wind River and Fort Peck tribes got $17 million in bonuses. That comes to $730 per capita, which, considering how low tribal per capita income is, is a not inconsiderable sum. "You can't blame the Indian people," says Cheyenne Councilman Edwin Dahle. "They have owned their property for a hundred years and never received a dime for it."

Potawatomi Chairman James Thunder
One of the U.S.' smallest tribes, the Potawatomis oppose development. You have to balance, Jim Thunder says, long-term environmental damage against short-term profits.

The bonuses excepted, little of the mineral income the tribes receive ever filters down very far. It goes to supporting the tribal government. All too often some of that goes to friends and relatives of the chairman. One conspicuous exception is the Osage. All Osage mineral income belongs to the tribe and is divided every quarter among the holders of 2,229 "headrights"—shares in the tribal mineral income divided among descendants of the tribal membership back in 1906. With Osage mineral income at $70 million last year, each headright probably yielded upwards of $30,000, generally tax-free.

Though the Osage have an experienced 18-man mineral staff of their own, even Chief Tinker couldn't persuade them to fund a modest $407,000 drilling program a year and a half ago. It's one thing for tribal politicians to pad the payroll, pay off relatives, live off the fat of the pork barrel, and quite another to take financial risks with the tribal funds, when failure can cost them the next election.

The solution lies in finding ways to finance tribal resource development without [illegible]g the tribe to put up any c[illegible]n money. Oregon's Warm S[illegible] tribes pioneered one such rout[illegible]y built a sawmill a few years ago[illegible]ase of what has since become a [illegible]izable forest products operation. But they didn't put up their own money. They borrowed it from the banks, using the output of the mill as collateral. On a much more sophisticated level, that's the procedure the tribes expect to use when and if they move ahead with their long-dreamed-of mine-mouth power plants, coal gasification or oil shale developments: collateralize their borrowing on the output of the projects.

More generally useful as a means of avoiding the capital problem are joint ventures or service contracts of the sort New York's Damson Oil pioneered a few years ago with the Blackfeet. "What we did," says Damson Vice President John Jacobs, "was to treat the Blackfeet the way we would a foreign concession and offer them a chance to develop their own resources. The Blackfeet put up the acreage at no cost to them. We put up the risk and development dollars—$6.8 million as it turned out—at no cost to them." The Blackfeet were to get one-sixth royalty on all production, plus 50% of the profits after capital expenditures were recovered. The result so far has been 13 producing wells, royalty income to the tribe and an upsurge in interest in the reservation by other companies. Damson expects to sign another three-year contract with the Blackfeet in the next month or two, and a number of other tribes—Fort Belknap, Rocky Boys—want Damson to look at their reservations for similar deals.

The Damson pattern has begun to spread. Since then, the Navahos have worked out comparable arrangements with Exxon for uranium exploration and development. The Northern Cheyennes have done so with Arco in oil and gas. And basically so has the Colville tribe in their copper-molybdenum deal with Amax.

The more sophisticated a tribe becomes, the wider its choices become. Under their banker-chief Ross Swimmer, the Cherokees are considering putting up joint venture tax shelters for outside investors to exploit the oil and gas in the 90 miles of Arkansas River bottom they won title to a decade ago. The Cherokees would hire a drilling contractor to drill out their lands and share royalties and production equally with their partners.

Most of the Indian tribes of North America have a gut aversion to tampering with the earth, to developing their natural resources, and so it is something of a wonder that, however slow and painful it has been, any economic progress has been made at all. Sometimes their aversion surfaces as religion, sometimes as politics or environmentalism or esthetics. But it is almost always there and continues to act as a damper on tribal development. "You get the sense that their whole being is tied to the land," says Arizona Public Service Vice President Russell Hulse, "and if you build a coal mine or something, you mess it up."

In some of the tribes, especially such older ones as the Hopis, who have lived more or less in the same location since the beginning of time, the old religious values are still strong. The Taos, San Felipe and Santo Domingo Pueblos have not only refused any mineral development on their lands, they have even refused to let any government agencies in to make surveys. So have the Forest County Potawatomis in Wisconsin. The Hopis would probably never have joined the Navahos in leasing the Black Mesa for Peabody Coal's big strip-mine development if the Navahos hadn't forced them into it.

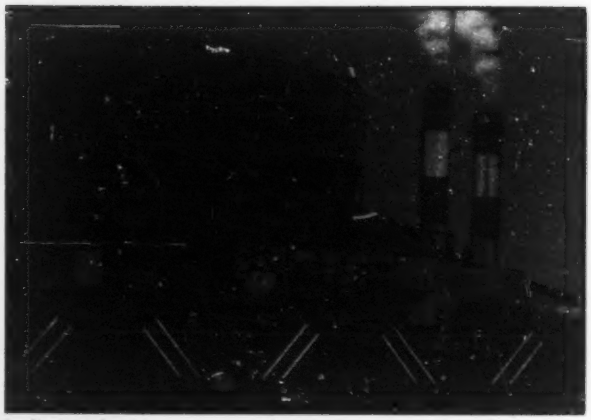
"The land is more precious than money," Hopi resource manager Richard Jeanne explains. "Not because of the resources, but because it's the land. Besides, they have been had by the white man so many times, anything to do with white involvement is something to avoid. This influences their approach to development."

It may be, as one skeptical oilman observes, "Indians think that sacred land leases for more money per acre." But it's also true that the old religion, like the old languages and customs and crafts, is virtually forgotten on most reservations. Tribesmen today are trying to rediscover what they are in much the same way that late-19th-century cowboys used to read Frank Munsey's Western pulps to discover how cowboys were supposed to behave. You cannot write off these religious objections as mere hypocrisy.

In any case, you don't need to wax mystical to fathom Indian wariness about development. Indians are no more eager to live with strip mines or power plants than anyone else is. And in many parts of the West, such developments have a visibility they don't have in areas where hills obscure and

Nevada's Pyramid Lake
The full potential of Indian lands is unknown. On the Paiute reservation (below) only two years ago geologists found outcrops of what may prove to be a huge copper ore body.

vegetation flourishes. Scar the landscape in the West—with a power plant or a dragline—and likely as not you will be able to see it 30 or 40 miles away. Unlike the Indians, then, people elsewhere are likely to have their price. If they don't like the power plant or transmission line or superhighway, they can take their money and move away. The Indians' choices are more limited. So, if they say they are turning down oil leases because they don't want the look of a mountaintop spoiled by pumps and pipelines, they have more than a little credibility.



Indian industry
Railroads and power plants on Navaho lands.

Take the Papagos, that poverty-stricken tribe in the the Arizona desert. The Papagos' mineral income is small, and they would like to expand it by moving forward with a copper development at a place called Garcia Strip. But the people don't want it. "We listen to the people and their wishes," says Vice Chairman Max Norris.

"You talk to these people," says Michael R. Rios, director of Papago research and planning, "and they say, 'If we agree to this mine, what will we live on? At San Xavier, the land used to be beautiful. Now there are tailings, and if it's an open-pit mine, a hole in the ground. And when the mine is gone, we have nothing, neither money nor the land. And there are other things we know will happen if you do these things. The people get money, and families are destroyed. You see a used car and drinking and breaking up a home.' If you develop, you've got to decide what's going to happen to the people."

In Wisconsin, Kerr-McGee wanted to prospect the Forest County Potawatomi reservation for uranium. Sooner than permit that, the Council promptly declared a ten-year moratorium on any exploration and development.

On the Mole Lake reservation not far away, Sakaogon Chippewa Chairman Raymond McGeshick is fighting to prevent Exxon from developing a huge zinc-copper mine a few miles away. Two-thirds of the six-square-mile Mole Lake reservation is water and wetlands—swamps, a lake, a river—and McGeshick fears the Exxon mine could pollute the water. As it is, there's a sizable zinc deposit on the reservation itself, undeveloped, and the 290-man tribe wants to keep it that way. There are only 600 acres of livable land on the reservation, and if the Chippewas chose to develop, they could easily dig themselves out of a reservation. "The people that live on my reservation," says Chairman McGeshick, "are opposed to mining. They want to live on that land the rest of their life."

Development can threaten a reservation in more ways than one. "There's a small tribe in the north," says BIA's David Baldwin, "a really small tribe, and they're sitting on a sizable amount of copper. They could easily be talking somewhere around $250 million net over the life of the mine. When we talked to the tribe, they told us their whole lifestyle for thousands of years had been tied to the wild rice that grew in their lake, and I couldn't tell them if we started mining we would never get any copper sulfide in the lake. I have seen too many accidents. They thought about it a long time, and then said, 'We want all information on our copper resources locked up.' But about three months ago, my geologists said, 'We got the alloy analysis back, and there's enough silver in the ore so that the economics have changed.' The tribe could net $1 billion. So I have to go back and say, 'What do you want to do?' But God is not making any more land, and the government's not making any more reservations."

For the Crows and Cheyennes, the Chippewas and the Potawatomis, as for most of the tribes, the preservation of the reservation itself—as a home, as a refuge—far outweighs any financial returns development could bring. Indian people have not fared well in the outside world, in the urban centers in particular, and they know it. Not economically, not culturally, not socially. "It's easier to stay on the reservation and be unemployed," says the Hopis' Richard Jeanne, "than it is to face the discrimination you have to face on the outside."

"If you're out there and you're burnt out," says Cheyenne Councilman Edwin Dahle, "where the hell do you go? You hit the streets as a bad person. Cheyennes don't want this. If you're burnt out, if you can't make a living, you can come back and you've got a home, you're accepted, you've got no worry."

Most of the tribes depend on government subsidies of various sorts for survival—at least $1 billion a year altogether, but the Reagan Administration budget cuts are expected to roll that back by 30% to 40%. In the cities, with Indian unemployment mounting, tribesmen are beginning to flock back to the reservations. Says the Chippewas' Ray McGeshick: "There ain't nothing we can offer them either. On the reservation we got 87% unemployment, but at least they have their home base."

Hence a paradox: Disturbing as it may be to traditional values, for the tribes the need for resource income is, if anything, greater than ever. Development offers the best hope of the tribes' ever breaking free of the hopeless poverty that besets so many of them, the unemployment and the alcoholism. Yet a people who borrowed the horse from the Spaniards and the rifle from the British and French has all the adaptability anyone needs to survive in a changing world.

You have to realize that it's just within the last four or five years that the Indian people have been doing business at all," says Ted Bryant, a Cherokee who heads up the Native American Program for accountants Deloitte, Haskins & Sells. "The profit motive has not been prevalent, and the BIA did not encourage them to develop the entrepreneurial frame of mind. But they are learning and learning fast. These days they are really moving in quantum leaps."

"We can integrate change within our way of life, our culture, our traditions," Peter MacDonald says, "just as we have with pickup trucks and automobiles, Levis and Western shirts and Stetsons. The Navaho sense of culture is what you are inside your soul, not what you are wearing or driving or watching on TV. I have no fear our way of life is going to be destroyed or lost. It will just be an enrichment."

That could be a happy ending to a dismal story that has, to date, been of little credit to either side. ■

It has been a tough year indeed for small, emerging growth companies. Witness the FORBES Up-And-Comers class of '81. But cream still has a way of rising to the top.

Life in the fast lane

By Steve Kichen and Jon Schriber

EMERGING GROWTH COMPANIES may have been the darlings of Wall Street last year, but this year they've taken their lumps along with the rest of the market. The NASDAQ over-the-counter index fared little better than the 30 Dow Industrials, off 9% from year-end 1980. Another Up-And-Comers barometer, the Amex Index, dropped 10%.

With money market funds paying 16% or more it is not hard to see why investors have been backed away from secondary stocks. And with an increasingly sluggish economy, it's no surprise that fewer companies made the FORBES Up-And-Comers class of '81 than the 386 companies that were in the FORBES Up-And-Comers class of '80 (on 1981 criteria). This year the list decreased in size by a stiff 25% to only 291 companies.

What does it take to make the FORBES Up-And-Comers list? As a test of self-financing capability we look for an average return on equity for the past five years of at least 15%. If anything, with the prime hovering in the high teens and small companies often unable to borrow at rates as favorable as those available to well-established corporate giants, this cutoff may be a bit lenient.

Then we eliminate any company whose debt as a percentage of book value is greater than 100%, to make our profitability requirement meaningful and to screen out companies with dangerously high leverage. Finally, and quite arbitrarily, we decided that any firm with sales over $100 million should no longer be considered an Up-And-Comer.

In addition, we excluded royalty trusts this year because they derive their income in a passive manner through ownership of properties containing oil and gas or other natural resources.

It took a mixture of shrewd market judgment, adroit maneuvering and a little luck to stay in the upper reaches of the Up-And-Comers. Take league-leading Republic Gypsum of Dallas, Tex., for example. As a manufacturer of wallboard, the company's fortunes are closely tied to the badly hurt housing industry. But Republic President Max Montgomery was able to soften the blow by simply expanding the shipping radius from his plant. Republic operates its own fleet of 40 tractor trailers so it can back-haul not only its own raw materials but distribute other manufacturers' building materials as well. "If you keep those trucks loaded both ways you can reach a lot farther out, and cut costs as well," says Montgomery.

And some of what appears to be luck may have a lot more to do with good market sense. You might think it predictable that Cheezem Development, which builds luxury high-rise condos in Florida, would be doing well. But it didn't look so predictable in 1978 when condos were still in oversupply and President Charles Cheezem was trying to raise capital for 2,400 units on Brickell Key, in Biscayne Bay a few hundred feet from Miami. In the end, Cheezem raised the seed money from Hong Kong's Swire Properties, Ltd. Swire's investment has since paid off handsomely, in large part because Cheezem correctly guessed that wealthy Latin Americans would be attracted to the excellent security features of Brickell's island location.

Luck? Sure, some companies are born lucky. Chairman Donald Pels freely admits his enormously successful Lin Broadcasting falls into that category. "I'd like to give you some romance," he says, "but this is not a very difficult business to run well." With four television stations, the largest situated in the booming Ft. Worth-

Dallas area, five sets of AM/FM stations and an arm that sells radio paging or "beeper" services for doctors or airline pilots on call, Pels says cash-laden Lin would have done even better if his stations hadn't been affiliated with NBC.

And then there's WD-40, which continues with enormous success to make only its all-purpose, petroleum-based, combination lubricant, rust preventative, penetrant (for sticky locks) and moisture-displacer, WD-40. "We have broken all the rules," says President John Barry with a smile. "We've just concentrated on one product." And it works beautifully.

But for most Up-And-Comers, last year was clearly a lot tougher than most. Only 50 companies on our list this year could boast no long-term debt at all, as opposed to 66 companies in 1980. Wall Street seems well aware of this. True, some Up-And-Comers still command sky-high multiples. Look at Sykes Datatronics, for example, which makes intelligent computer terminal equipment and commands a P/E multiple of almost 51 on the strength of its five-year average return on equity of 44.8%.

But several of our listed stocks now have price/earnings ratios close to or even below the Dow Jones industrials multiple of 6.8. In fact, plenty of the companies on the following pages could be classified as FORBES Loaded Laggards. Take, for example, Carlsberg—a land developer and construction company, which sells at a P/E of just 4.9, and nearly an 11% discount from book value, despite a five-year average earnings growth rate of better than 31%. Other interesting bargain-basement Up-And-Comers are ADM Industries, RLI, Vintage Enterprises and Cascade Corp.

With an increasingly sluggish economy, it's no surprise that 95 fewer total companies made the FORBES Up-And-Comers class of '81.

T. Rowe Price expects a rebound in building stocks *(see p. 247)*. If Mr. Price is correct, ADM Industries—a manufacturer and distributor of hardware products and other housing materials—is an interesting play. At a market price of only 1⅜ and a 49% discount from book value the stock has the potential for considerable leverage. Although earnings decreased 58% in 1980, sales were up 37% for the first three quarters of 1981. Vintage Enterprises builds and retails manufactured homes and could also share in a building boom.

The world's largest insurer of contact lenses, RLI, sells at a P/E ratio of only 4.3. As corporations take advantage of the new tax laws to invest in accessories which make lift trucks more efficient, Cascade Corp.'s earnings could surge.

But perhaps the most interesting companies in the pages that follow are the dozens of newcomers: companies like Initio, a mail-order sales firm, and Mark Products, which manufactures seismic equipment used in oil exploration. Then there's IPM Technology and Hudson General, both of which offer specialized services to airlines. In this era of deregulation and upstart carriers, providers such as IPM and Hudson are playing an increasingly important role. Other newcomers include Vermont Research, a manufacturer of magnetic memory devices for computers, and Trus Joist (FORBES, *Nov. 24, 1980*), which prefabricates construction beams. These companies are the new blood which gives this elite club its bright future.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Republic Gypsum building materials	192.4%	18.1%	126%	$21.2	$1.39	6.5%	$4.18	67%	6½	$0.76	8.5
Key Pharmaceuticals ethical drugs	152.7	21.4	77	23.7	3.18	13.4	1.35	4	21⅛	0.29	72.8
United Cable Television CATV	92.2	13.9	110	62.8	7.90	12.5	5.89	85	21½	0.82	26.2
Cheezem Development construction	90.1	34.7	146	29.6	4.13	13.9	6.97	84	6¾	2.42	2.7
Adage computer equipment	86.4	33.3	34	15.9	0.83	5.2	3.00	23	16½	1.00	16.5
Lin Broadcasting broadcasting	69.6	42.4	22	64.5	16.01	24.8	7.06	58	31¾	3.00	10.5
WD-40 lubricants	65.5	54.2	27	44.5	7.84	17.5	5.84	0	36	3.17	11.3
Quotron Systems financial information svs	64.0	18.9	40	63.8	8.91	13.9	7.71	1	35¾	1.46	24.4
Pioneer Group finance	62.8	58.5	50	10.6	2.94	27.5	2.99	0	15¾	1.75	9.0
General Defense weapons manufacture	61.9	47.9	32	70.9	5.60	7.8	2.86	14	14¼	1.37	10.4
Initio mail-order sales	54.9	25.6	48	7.7	1.87	24.0	1.48	30	4½	0.38	11.8

*Latest fiscal year.

Source: Standard & Poor's.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Dranetz Engineering Labs precision instruments	54.4%	29.1%	50%	$15.3	$ 2.08	13.5%	$ 3.46	2%	15¼	$1.01	15.0
Kratos precision instruments	53.2	18.1	23	55.5	3.45	6.2	7.87	3	10½	1.43	7.3
Standard Microsystems electronics	53.0	9.7	26	18.6	2.44	13.0	4.30	14	7⅜	0.42	17.5
Mark Products precision instruments	52.5	39.6	113	42.2	5.80	13.7	2.47	48	11½	0.98	11.7
Guaranty National insurance	50.9	21.7	27	50.0	7.98	15.9	8.01	0	12½	1.74	7.1
Plenum Publishing publishing	50.0	45.9	21	24.4	3.51	14.3	4.09	3	17¼	1.88	9.1
SafeCard Services credit-card loss services	49.6	27.6	52	16.1	3.06	18.9	2.82	0	11¼	0.78	14.4
Calprop building	49.4	32.0	60	23.7	3.45	14.5	5.80	99	3¼	1.86	1.7
Staff Builders temporary personnel	49.4	15.2	46	67.6	2.05	3.0	3.74	0	7⅞	0.57	13.8
Zenith National Insurance insurance	49.0	31.0	39	83.6	10.94	13.0	5.79	13	15¼	1.80	8.4
Aztec Manufacturing oilfield equipment	46.2	36.3	46	39.3	6.41	16.2	4.90	5	18¾	1.78	10.5
Interface Mechanisms price scanning systems	45.6	20.6	62	15.6	1.68	10.7	4.12	0	10⅞	0.85	12.7
Comprehensive Care health care services	44.8	24.6	50	51.3	4.71	9.1	2.92	29	16⅛	0.72	22.3
Sykes Datatronics computer equipment	44.8	21.9	114	24.1	3.35	13.8	2.32	17	26	0.51	50.9
PBA freight forwarding	44.7	20.9	26	97.5	1.34	1.3	2.34	0	11	0.49	22.4
Alico agriculture	44.3	23.2	31	15.2	4.24	27.7	8.67	6	47½	2.02	23.5
Tucker Drilling oil and gas drilling	43.9	25.4	38	27.9	3.25	11.6	6.51	12	16⅞	1.66	10.1
Bolar Pharmaceutical ethical drugs	43.2	29.0	54	11.8	2.14	18.1	2.00	0	12	0.58	20.6
Kroy Inc graphic products	41.2	35.2	43	37.1	5.80	15.6	2.64	10	16½	0.93	17.7
Alabama-Tenn Nat Gas natural gas pipeline	40.8	38.1	24	91.9	5.27	5.7	13.56	9	34¾	5.17	6.7
Sensormatic Electronics electronics theft contr	40.6	24.8	39	50.7	10.18	20.0	6.69	69	38¾	1.66	23.3
CACI technical consulting	40.1	41.8	55	58.4	2.30	3.9	5.31	26	24¼	2.22	10.9
IPM Technology airline services	40.0	27.8	138	44.1	1.49	3.3	3.91	70	4½	1.09	4.1
Analogic computer equipment	39.9	15.6	55	67.0	6.03	8.9	6.46	9	26	1.01	25.7
Hudson General leases airline, RR equip	39.1	17.6	138	55.8	3.08	5.5	12.26	72	8	2.17	3.6
Vermont Research computer equipment	38.4	47.8	140	16.0	2.80	17.4	3.41	11	13⅞	1.63	8.5
Minnetonka personal care products	38.2	21.2	87	73.2	5.53	7.5	3.39	5	5¾	0.72	7.9
US Surgical health care products	37.9	11.9	36	86.2	7.96	9.2	8.77	47	26¾	1.05	25.4
Redcor electronics	37.7	36.5	119	24.0	3.39	14.0	3.34	11	12	1.22	9.8
Impell service to nuclear ind	37.2	32.9	40	51.9	7.14	13.7	6.95	0	34½	2.29	15.0
Kulicke & Soffa Inds precision instr, tools	37.1	14.1	42	49.7	7.96	15.9	8.58	5	13¾	1.21	11.3

*Latest fiscal year.

Source: Standard & Poor's

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Day Mines silver, gold, lead, zinc	36.8%	16.4%	45%	$35.1	$10.34	29.4%	$ 6.26	0	23	$1.03	22.3
American Income Life Ins insurance	36.8	24.4	40	84.2	13.74	16.3	9.33	0	21¼	2.28	9.3
Chem-Nuclear Systems nuclear waste treatment	36.8	48.8	52	61.6	8.03	13.0	4.44	4%	36	2.17	16.5
Petroleum Equip Tools oilfield tools, equip rental	36.0	26.2	59	92.7	13.82	14.9	8.30	35	28½	2.18	13.0
Prime Motor Inns motels	36.0	29.6	56	47.4	6.48	13.6	4.76	80	13	1.41	9.2
United Keno Hill Mines silver and lead	35.9	5.2	18	26.5	6.42	24.1	12.52	0	19½	0.65	30.0
American Agronomics agriculture	35.3	23.5	89	49.4	5.27	10.6	1.40	46	6¾	0.33	20.4
Mite fasteners	35.2	27.9	23	63.4	6.29	9.9	12.17	89	29¼	3.40	8.6
Reuter Inc computer, refuse coll eq	34.5	17.9	134	14.3	1.58	10.9	7.23	2	11⅛	1.30	8.5
Magnetic Controls telecom equipment	34.4	12.7	36	55.9	3.62	6.4	11.89	18	15	1.52	9.8
Dynatech health care products	34.2	24.8	22	51.7	3.61	6.9	5.87	58	25¼	1.46	17.2
Save-Way Industries personal care products	33.5	29.3	41	50.0	4.57	9.1	4.60	90	8⅞	1.35	6.5
Sealed Air packaging	33.0	17.8	23	88.6	6.41	7.2	14.19	3	28	2.53	11.0
Spectrum Control electronic poll control	32.8	12.9	24	14.3	1.08	7.5	1.93	17	5⅞	0.25	23.4
Dreyfus finance	32.3	42.4	53	58.7	11.53	19.6	6.93	3	18¾	2.94	6.3
Ambassador Group insurance	31.9	27.8	39	34.3	6.93	20.1	7.44	2	14¾	2.07	7.1
Base Ten Systems electronics	31.9	27.0	58	11.2	1.01	9.0	5.39	16	14	1.46	9.5
Gray Communications broadcasting, publishing	31.9	21.3	25	37.0	2.40	6.4	22.48	9	45½	4.79	9.5
Maynard Oil oil, gas drill ex, dev	31.8	23.0	28	31.6	5.17	16.3	4.68	75	12¾	1.08	11.8
Modular Computer Sys computer equipment	31.8	3.4	114	81.0	3.81	4.6	12.42	1	8½	0.43	19.7
Kenai oil and gas drilling	31.7	18.9	58	95.9	7.95	8.2	13.53	100	20¾	2.56	8.1
Pacesetter Corp building materials	31.7	18.1	18	41.5	2.69	6.4	6.88	0	10½	1.25	8.4
Carlsberg land development	31.5	18.1	47	51.5	5.22	10.1	9.52	61	8½	1.73	4.9
Floating Point Systems computer equipment	31.1	12.7	39	42.4	4.24	9.9	5.89	12	20⅜	0.75	27.1
Drexler Technology supplies for semicond ind	30.9	9.2	25	14.6	1.59	10.8	5.19	0	11	0.48	22.9
Westmin Resources oil & gas, metals	30.8	72.7	101	79.2	26.67	33.6	0.92	59	9	0.67	13.4
Tylan equip for semicond indus	30.8	34.7	112	18.3	1.85	10.0	2.68	0	10	0.93	10.7
Microdyne electronics	30.7	22.6	57	23.7	3.20	13.4	3.93	4	15¾	0.89	17.6
Computer Products electronics	30.2	15.4	25	18.9	2.07	10.9	3.69	5	10⅞	0.57	19.0
Trus Joist prefab beams	30.2	19.5	26	82.2	6.56	7.9	9.23	45	19¼	1.80	10.6
Cellu-Craft packaging	30.1	31.4	30	38.4	1.55	4.0	3.05	29	3⅝	0.96	3.7

*Latest fiscal year.

Source: Standard & Poor's.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Flightsafety International air and marine training	29.9%	27.1%	32%	$53.8	$13.88	25.7%	$ 6.34	26%	40½	$ 1.72	23.5
Grey Advertising advertising	29.6	21.3	22	98.5	6.30	6.3	51.01	1	59	10.89	5.4
Statesman Group insurance	29.5	18.9	18	96.4	4.99	5.1	6.23	32	6⅛	1.18	5.1
Community Psych Ctrs health care services	29.5	23.5	33	59.3	8.43	14.2	6.93	54	33½	1.63	20.5
Brennand-Paige Industries wire & cable	29.4	29.5	39	60.9	4.50	7.3	4.94	19	7¾	1.46	5.3
Penril precision instruments	29.4	16.6	22	33.3	1.78	5.3	7.37	36	10	1.23	8.1
Avantek electronics	29.3	26.5	46	58.2	7.04	12.0	2.00	3	17¼	0.53	33.4
Sikes ceramic tiles	29.2	22.4	135	40.8	3.45	8.4	7.25	48	8½	1.63	5.2
Investment Corp of Am banking, finance	28.8	34.6	23	13.6	2.38	17.4	6.96	43	8½	2.41	3.5
Eldorado Bancorp banking	28.7	30.4	48	11.9	1.41	11.8	5.23	0	11¼	1.59	7.3
Central National Financial insurance	28.7	29.0	28	27.3	2.54	9.3	10.56	0	27	3.07	8.7
Frost & Sullivan publishing	28.6	29.1	49	6.6	0.57	8.5	1.34	0	3⅝	0.39	9.2
Nicolet Instrument precision instruments	28.3	16.7	19	77.3	4.79	6.1	5.96	38	14⅝	1.00	14.6
Intelligent Systems computer equipment	28.0	18.8	97	18.7	1.59	8.4	4.25	0	23½	0.80	29.3
ADM Industries building materials	27.9	10.3	120	9.7	0.20	2.0	2.71	19	1⅜	0.28	4.8
Baruch-Foster oil and gas development	27.8	41.0	129	7.6	2.19	28.7	2.78	7	12⅞	1.14	11.2
General Datacomm Inds telecomm equip	27.5	12.7	46	53.6	4.41	8.2	5.50	38	9⅞	0.70	14.1
Fluorocarbon plastics, semicond sup	27.5	13.3	19	79.3	3.59	4.5	5.98	36	10	0.80	12.5
Pacific Scientific aerospace	27.4	27.3	40	61.2	7.15	11.6	4.82	3	15	1.32	11.3
Southern Bancorp SC banking	27.3	20.9	22	60.3	6.29	10.4	10.51	51	11½	2.20	5.2
Southwest Factories auto parts	27.3	17.2	28	34.0	0.46	1.3	2.72	77	3⅜	0.47	7.1
American Public Energy oil & gas explor & dev	27.2	7.9	78	4.3	0.95	21.9	2.65	13	4¼	0.21	22.6
Transport Life Insurance insurance	27.0	26.4	30	87.4	8.60	9.8	6.50	27	16	1.72	9.3
Children's World day-care centers	26.9	23.7	34	14.3	0.83	5.7	1.43	58	4⅛	0.34	12.1
Trico Industries oilfield equip & services	26.9	31.5	26	82.5	6.07	7.3	4.12	26	12⅝	1.30	9.7
Norstan precision gears	26.6	14.1	28	24.8	1.78	7.1	4.81	23	10½	0.68	15.4
Electrospace Systems electronics	26.5	31.8	41	45.5	2.80	6.1	2.98	22	18½	0.95	19.4
Electronics Corp of Amer electronics	26.1	23.5	24	42.8	5.75	13.4	14.70	54	27¼	3.46	7.8
Tenney Engineering precision instruments	25.9	21.7	54	13.1	0.73	5.5	2.21	60	5	0.48	10.4
Callahan Mining silver mining	25.9	12.9	25	29.3	8.43	28.6	7.36	0	15⅞	0.95	16.7
Cardillo Travel Systems travel services	25.8	74.7	98	72.5	0.53	0.7	1.03	30	4⅜	0.77	5.6

*Latest fiscal year.

Source: Standard & Poor's.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Materials Research spec metals & ceram	25.8%	13.6%	45%	$71.3	$ 4.38	6.1%	$ 7.42	35%	15¼	$1.01	15.5
Quadrex nuclear engineering svs	25.7	22.6	61	52.8	4.28	8.1	4.02	4	16¼	0.91	17.8
CIC Financial insurance	25.7	25.9	43	41.0	3.83	9.3	13.47	13	19½	3.49	5.5
Radiation Systems antennas	25.4	14.3	26	9.8	1.18	11.9	5.86	23	18¾	0.84	22.3
National Gas & Oil natural gas	25.3	19.6	17	40.6	3.18	7.8	9.30	0	11⅞	1.83	6.3
Data Card plastic card proc equip	25.3	14.3	22	75.3	6.37	8.4	7.19	9	9⅜	1.03	9.3
Thompson Medical proprietary drugs	25.3	34.6	46	95.2	10.03	10.5	7.53	0	12	2.61	4.5
Kallestad Labs health care products	25.2	30.8	47	14.2	2.25	15.7	2.69	12	15⅝	0.83	18.8
Neutrogena personal care products	25.2	21.3	18	29.4	2.00	6.8	6.05	0	28	1.29	21.7
Comshare computer services	25.2	11.6	19	82.9	3.58	4.3	7.23	24	9	0.84	10.7
Voyager Group insurance	25.1	21.5	26	89.2	4.17	4.6	7.84	56	10⅝	1.69	6.2
Unimed ethical drugs	25.0	22.5	37	2.3	0.70	29.6	1.24	0	11	0.28	39.2
Alpha Industries electronics	24.9	15.7	34	29.5	2.78	9.3	7.76	14	29	1.22	23.7
RLI insurance	24.9	20.0	23	24.1	2.82	11.6	7.33	21	6⅛	1.47	4.3
Southwestern Energy gas utility	24.8	27.0	23	47.9	10.25	21.3	4.74	44	13½	1.28	10.5
TransNet computer services	24.7	23.6	70	8.6	0.97	11.2	1.69	33	2⅝	0.40	6.5
Olsten temporary personnel	24.7	16.9	19	89.2	2.44	2.7	7.61	3	12¼	1.29	9.4
Hi-Shear Industries fasteners	24.6	15.4	26	89.5	9.94	11.0	13.96	36	12⅜	2.15	5.7
Vintage Enterprises manufactured homes	24.6	12.8	83	27.8	0.58	2.0	4.29	28	3¾	0.55	6.8
Evans-Aristocrat Inds measuring tapes	24.4	19.6	17	23.6	3.20	13.5	8.92	0	12⅞	1.75	7.3
Jackson National Life insurance	24.4	28.1	39	62.8	4.40	6.9	11.15	0	20⅝	3.14	6.5
Regency Electronics electronics	24.3	22.0	17	70.8	7.86	11.0	6.63	7	14⅝	1.46	10.0
Zero enclosures for electronics	24.3	22.7	21	79.2	5.88	7.4	9.04	42	22¼	2.06	11.0
Time Sharing Resources computer services	24.3	15.3	26	8.2	0.60	7.3	3.46	3	12	0.53	22.6
Newcor industrial machinery	24.1	18.8	22	63.0	2.98	4.7	11.34	18	13	2.14	6.0
Cordura publishing	24.0	55.3	31	26.9	4.10	15.2	1.77	0	6⅞	0.98	7.0
Adams-Russell electronics, CATV	23.9	19.0	35	36.1	2.71	7.5	5.84	53	20¼	1.11	18.2
Electro-Nucleonics health care products	23.6	12.6	71	34.9	1.79	5.1	5.07	32	9¼	0.64	14.4
Cascade hydraul activated equip	23.6	13.0	25	87.5	5.63	6.4	48.52	23	31½	6.31	4.9
Computer Consoles computer, telecomm eq	23.5	19.3	120	44.1	4.84	10.9	5.23	1	23¼	1.01	23.0
Astrex electronics	23.2	17.5	44	60.1	2.42	4.0	9.01	61	12⅜	1.58	7.8

*Latest fiscal year.

Source: Standard & Poor's.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Natl Sec & Research finance	23.2%	29.7%	25%	$7.9	$1.88	23.6%	$5.51	0	12⅝	$1.64	7.6
Astrosystems computer equipment	23.1	17.3	21	6.7	1.27	18.8	2.82	0	5½	0.49	11.2
Friedman Industries metalworking	23.1	23.2	21	90.2	5.23	5.7	8.95	13%	10¼	2.08	4.9
Wiser Oil oil and gas	23.0	23.8	17	54.8	18.24	33.2	27.32	0	84	6.52	12.8
Micro Mask photographic equipment	23.0	14.2	29	22.5	1.82	8.0	6.30	34	7¼	0.90	8.6
Research Inc. precision instruments	22.9	21.3	22	21.4	1.70	7.9	5.62	0	10¼	1.20	8.5
Hi-Port Industries packaging	22.9	23.8	58	7.1	0.25	3.5	1.59	79	2½	0.38	6.5
Cascade Steel Rolling Mills steel	22.8	11.8	122	64.0	4.51	7.0	7.36	71	8⅝	0.87	10.0
Vertipile textiles	22.8	19.2	62	23.1	1.11	4.8	5.09	22	4⅞	0.98	4.9
Lindberg heat-treating of metals	22.7	17.8	16	64.2	4.62	7.1	5.22	45	1½	0.93	12.3
CRS Group architect, engineering	22.6	20.8	18	76.0	5.53	7.2	12.01	4	8½	2.50	7.4
Communications Inds electronics	22.5	21.4	19	45.8	4.99	10.8	5.74	3	30¼	1.23	24.5
Liberty Homes manufactured homes	22.4	17.5	21	94.5	4.67	4.9	6.83	0	10¼	1.20	8.5
Comserv computer software	22.4	19.3	39	10.7	0.90	8.4	2.84	2	12¼	0.55	23.1
Air Wisconsin airline	22.3	20.6	33	35.6	4.29	12.0	4.98	85	13¼	1.03	12.8
Cullinane Database Sys computer software	22.3	20.0	44	29.3	4.55	15.5	8.34	0	61½	1.67	36.8
Monument Energy Services oilfield services	22.2	15.0	45	12.6	0.79	6.2	5.46	28	13¾	0.82	16.7
Telecomm Equipment telecomm equipment	22.0	14.1	110	30.2	1.37	4.5	4.89	5	14¼	0.69	20.6
Duralith electronics	21.9	21.2	46	13.4	1.13	8.3	4.90	9	10½	1.04	10.0
Medex health care supplies	21.9	40.4	72	6.8	0.85	12.3	0.99	52	10	0.40	25.0
American City Bank LA banking	21.7	18.4	39	43.3	3.16	7.2	6.82	33	10¼	1.26	8.1
King Radio electronics	21.6	16.2	30	97.2	7.04	7.2	17.89	8	23¼	2.90	8.1
Cut & Curl beauty salons	21.4	22.7	51	11.3	0.85	7.5	5.50	0	10¼	1.25	8.2
United Bancorp of Arizona banking	21.4	21.8	33	76.5	7.46	9.7	23.75	43	33¼	5.20	6.3
Cycare Systems computer services	21.3	39.5	16	14.7	0.62	4.2	1.29	52	11	0.51	21.5
American Recreation Ctrs bowling centers	21.1	21.6	29	17.6	1.88	10.6	8.12	81	9	1.76	5.1
Atlantic American insurance	21.1	15.6	35	37.6	3.65	9.7	8.67	7	10⅝	1.36	7.4
Ennis Business Forms business forms	20.9	25.7	39	83.9	5.58	6.6	13.29	20	19⅞	3.42	5.8
N Mex & Ariz Land land and resources dev	20.9	17.3	29	8.4	2.59	30.7	5.23	55	20⅛	0.91	22.1
Ohio-Sealy Mattress mattresses and boxsprings	20.9	22.7	26	52.1	4.25	8.1	5.62	15	8⅛	1.28	6.3
Wichita Industries oil and gas exp and dev	20.8	11.6	19	10.4	1.92	18.3	2.74	34	13¼	0.32	42.9

*Latest fiscal year.

Source: Standard & Poor's

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Hadson Petroleum oil and gas explor, dev	20.8%	13.9%	29%	$ 9.4	$ 3.53	37.4%	$ 2.29	100%	15½	$0.32	48.4
Anderson 2000 pollution control equip	20.8	40.9	96	5.8	0.54	9.2	1.05	0	12	0.43	27.9
Gerber Scientific precision equipment	20.7	18.4	46	93.1	6.31	6.7	5.43	66	13⅜	1.00	13.3
Vulcan Corp footwear parts	20.7	23.8	32	39.8	3.46	8.6	10.06	13	10⅞	2.40	4.5
Heinicke Instruments laboratory apparatus	20.5	22.1	30	21.6	2.18	10.0	4.66	33	12¼	1.03	11.8
New Penn Motor Express trucking	20.4	17.3	19	42.8	3.66	8.5	21.27	11	16¾	3.70	4.5
Acme Electric electrical equip	20.4	16.5	18	52.3	3.05	5.8	6.23	30	7¼	1.03	7.0
Evans & Sutherland Comp computer equipment	20.2	21.2	56	34.6	6.13	17.6	3.90	3	32	0.83	38.5
Sys Engineering & Mfg electropltg sys, filters	20.1	24.5	35	22.1	1.53	6.9	5.86	22	10⅝	1.44	7.3
Frigitronics eyeglass lenses	20.0	23.4	20	90.0	4.83	5.3	7.56	12	18¼	1.77	10.3
AGM Industries auto parts, weapons	20.0	8.1	27	31.8	0.93	2.9	21.02	29	10	1.71	5.8
Tony Lama footwear	19.9	27.8	66	67.2	4.86	7.2	13.05	28	23¾	3.64	6.5
Scope Industries recycling food waste	19.9	16.0	23	22.2	4.34	19.5	12.18	1	23⅜	1.96	11.9
McFarland Energy oil and gas explor, prod	19.9	22.2	20	13.3	4.10	30.7	4.49	0	13⅝	1.00	13.6
Moran Energy oil and gas explor, dev	19.9	14.5	18	67.1	11.13	16.5	11.03	72	19	1.61	11.8
Cray Research computer equipment	19.8	10.8	114	60.7	10.90	17.9	5.92	15	36⅛	0.64	56.4
Aero-Flow Dynamics pumps	19.7	19.2	28	97.1	3.46	3.5	30.89	12	46	5.97	7.7
Osmonics chemical processing sys	19.5	11.3	24	5.5	0.62	11.0	4.50	1	13¾	0.51	26.9
Core Laboratories oilfield services	19.5	17.1	25	89.4	7.32	8.1	8.44	48	23⅞	1.45	16.4
Detection Systems intrusion detectors	19.5	38.5	87	9.2	1.06	11.4	1.92	28	16½	0.74	22.2
AIC Photo photographic equipment	19.3	18.8	136	40.0	1.92	4.7	6.54	1	5	1.23	4.0
Trion electronic air cleaners	19.2	20.0	18	9.0	0.82	9.0	4.84	12	11¾	0.97	12.1
Detrex Chemical specialty chemicals	19.0	16.0	21	76.3	4.13	5.4	33.98	3	30½	5.45	5.5
Spectradyne closed-circuit TV	18.8	23.9	47	13.0	1.96	14.9	3.22	7	12½	0.77	16.2
TSI precision instruments	18.7	18.4	27	11.1	1.02	9.1	4.11	30	8¼	0.76	10.8
Tidwell Industries mobil homes	18.7	18.9	59	56.2	1.26	2.2	5.58	57	14¾	1.06	13.9
Anderson, Greenwood valves	18.6	19.3	22	46.5	3.62	7.7	6.82	24	12	1.32	9.0
Oakwood Homes manufactured homes	18.5	15.6	22	43.6	3.17	7.2	15.05	7	20	2.35	8.5
Rego Group precision equipment	18.5	15.7	107	46.1	3.57	7.7	6.49	56	7	1.02	6.8
Acme United health care supplies	18.5	19.4	25	35.5	2.72	7.6	6.33	39	16¾	1.23	13.6

*Latest fiscal year.

Source: Standard & Poor's.

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Barden ball bearings	18.4%	18.2%	42%	$63.5	$ 7.09	11.1%	$20.79	16%	25	$3.79	6.5
Unit Drilling & Explor oilfield services	18.4	25.7	48	39.6	7.57	19	6.48	66	22	1.67	13.1
Optical Radiation electronics	18.4	15.1	32	17.2	1.51	8.7	6.87	17	13¼	1.04	12.7
Golden Enterprises snack foods, fasteners	18.3	18.3	21	65.8	3.12	4.7	8.68	3	17½	1.59	11.0
Infrared Industries electronics	18.2	13.0	20	15.8	0.43	2.7	4.14	25	6½	0.54	12.0
G&K Services linen and uniform rentals	18.2	17.8	18	38.3	2.16	5.6	8.17	8	9½	1.46	6.5
Scientific Computers computer services	18.2	22.8	51	13.4	1.49	11.0	4.42	23	9	1.01	8.9
Teleflex multicompany	18.2	22.0	36	78.5	4.76	6.0	5.94	54	21⅜	1.31	16.3
Precision Castparts precision casting	18.2	18.5	34	97.1	4.35	4.4	14.08	90	29⅛	2.61	11.1
Finnigan precision instruments	18.1	10.9	32	43.2	1.66	3.8	5.65	59	9¾	0.62	15.7
Reliability electronics	18.1	15.8	23	16.6	1.19	7.1	1.39	11	3⅞	0.22	17.5
Colonial Life & Accident insurance	18.1	14.3	16	96.9	13.97	14.4	18.36	2	14⅜	2.64	5.4
Newport Corp industrial, lab equip	18.1	35.4	34	15.0	2.99	19.8	3.64	0	19	1.29	14.7
Commonwealth Theatres movie theaters	18.0	18.2	21	73.2	2.77	3.7	12.16	67	13½	2.22	6.0
General Real Estate Shares real estate	18.0	19.4	110	2.6	0.79	29.4	7.72	94	12	1.50	8.0
Kerr-Addison Mines mining	18.0	22.9	52	58.3	30.39	52.0	14.17	0	16⅛	3.25	5.0
Dependable Ins Group insurance	18.0	21.0	20	31.8	3.41	10.6	7.93	0	9¾	1.67	5.8
Dunlap & Associates flight simulators	17.9	10.1	18	30.9	1.07	3.4	9.16	34	14½	0.93	15.5
UNA specialty steel	17.8	7.3	118	28.8	0.40	1.3	5.83	99	3⅞	0.43	9.0
Seiscom Delta oilfield services	17.7	11.9	126	63.2	3.23	5.1	12.45	2	18½	1.49	12.4
Athey Product industrial equipment	17.6	23.5	40	23.2	2.14	9.2	15.48	27	14¾	3.65	4.0
TIE/Communications telecomm equipment	17.6	21.0	77	59.8	3.38	5.6	2.76	85	19⅛	0.58	33.3
George Washington insurance	17.6	14.8	118	35.2	2.65	7.5	5.40	0	3¾	0.80	4.6
Wham-O Manufacturing recreational equipment	17.6	9.6	17	27.4	1.89	6.8	13.83	0	7¾	1.34	5.7
IFS Industries funeral homes	17.5	14.9	26	56.8	3.85	6.7	8.41	100	12⅜	1.26	9.8
Turner Construction construction	17.5	20.8	21	36.1	7.03	19.4	18.41	31	26⅛	3.84	6.8
Electronic Modules electronics	17.4	20.4	30	22.3	1.49	6.6	4.49	14	19½	0.92	21.1
Hyatt International hotels	17.3	20.9	18	14.0	3.05	21.7	12.02	0	18⅜	2.52	7.2
Andrew telecomm equipment	17.3	15.9	21	89.2	7.15	8.0	11.80	28	37½	1.88	19.9
Electro-Catheter health care products	17.3	22.1	27	5.1	0.37	7.1	1.94	10	5½	0.43	12.7
Scurry-Rainbow Oil oil and gas, mining	17.3	7.2	26	49.6	11.77	23.7	26.11	21	37	1.89	19.6

*Latest fiscal year.

Source: Standard & Poor's

Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Computer Data Systems computer services	17.2%	20.7%	35%	$16.4	$ 0.96	5.8%	$ 6.36	10%	14¼	$1.32	10.7
Control Laser lasers	17.2	8.0	26	13.3	1.23	9.2	4.98	4	14	0.40	35.0
National Data computer services	17.2	22.4	27	75.6	7.51	9.9	3.65	8	19¼	0.82	23.4
Sierracin aerospace	17.1	13.2	25	60.7	3.37	5.5	4.52	73	8⅜	0.60	13.9
Lynden Transport trucking	17.1	33.0	59	63.3	3.47	5.4	11.90	29	23½	3.93	5.9
Boston Digital computer services	17.0	17.9	51	20.9	1.88	8.9	3.68	0	9	0.66	13.6
Chemplast industrial plastics	17.0	14.5	19	21.2	1.78	8.3	7.89	6	10⅜	1.15	9.0
Chieftain Development oil and gas drilling	16.9	10.3	17	48.7	7.85	16.0	5.02	72	16½	0.52	31.7
Electr, Missiles & Comm electronics	16.9	21.3	84	5.6	0.59	10.4	0.89	5	10¾	0.19	56.5
Prods Research & Chems specialty chemicals	16.8	14.3	17	49.4	3.67	7.4	5.14	19	9⅞	0.74	13.3
Biomedical Reference Labs health care services	16.7	26.9	38	34.4	3.52	10.2	2.86	15	19⅝	0.77	25.4
Kirby Exploration transportation	16.7	16.2	29	82.6	13.36	16.1	4.80	31	27¼	0.78	34.9
Shorewood land development	16.6	26.1	45	10.2	1.92	18.6	12.80	68	14	3.35	4.1
May Petroleum oil and gas explor, dev	16.6	10.0	31	22.3	4.52	20.2	10.21	1	30	1.03	29.1
Management Science Amer computer software	16.6	37.7	41	51.6	3.21	6.2	1.80	16	20¾	0.68	30.5
Pat Fashions Industries apparel	16.5	18.7	39	72.1	3.22	4.4	19.48	1	13¼	3.66	3.7
Weisfields retail jewelry	16.5	11.5	23	37.8	2.04	5.3	24.49	0	14½	2.83	5.1
Mutual Savings Life Ins insurance	16.5	19.7	17	50.7	4.79	9.4	15.36	12	28½	3.04	9.3
REDM Industries electronics	16.5	18.3	38	25.3	1.53	6.0	6.59	12	9	1.21	7.4
Breeze aerospace, auto parts	16.4	21.6	70	26.7	1.59	5.9	14.24	27	16¼	3.08	5.2
Chesapeake Utilities natural gas	16.3	22.7	24	32.5	1.87	5.7	21.36	29	15	4.86	3.0
Mark Twain Bancshares banking	16.3	18.3	26	67.3	6.31	9.3	19.70	59	30	3.61	8.3
Robinson Nugent electrical equipment	16.3	14.9	36	30.7	2.48	8.0	6.34	12	18	0.95	18.9
Myers Industries tire service equip, supplies	16.3	14.6	17	67.4	3.40	5.0	15.97	28	15½	2.34	6.6
Kleer-Vu Industries plastics	16.3	24.4	33	13.4	0.52	3.8	5.64	68	6⅛	1.38	4.4
Artco-Industries furniture, fast food	16.2	25.6	39	30.0	1.15	3.8	6.70	65	10	1.72	5.8
Photo Control photographic equipment	16.2	20.7	32	7.7	0.70	8.9	3.37	49	3	0.70	4.2
Missouri Research Labs industrial equip	16.2	14.7	38	15.5	0.77	4.9	1.96	16	2⅜	0.29	8.1
International Clinical Labs health care services	16.1	16.7	37	26.7	1.72	6.4	4.61	7	15¾	0.77	20.4
Vicon Industries security equipment	16.1	15.2	26	17.8	1.18	6.6	6.22	11	11⅞	0.95	12.4
Pandick Press printing	16.1	23.9	39	56.7	3.38	5.9	6.18	41	13⅜	1.48	9.0

*Latest fiscal year.

Source: Standard & Poor's

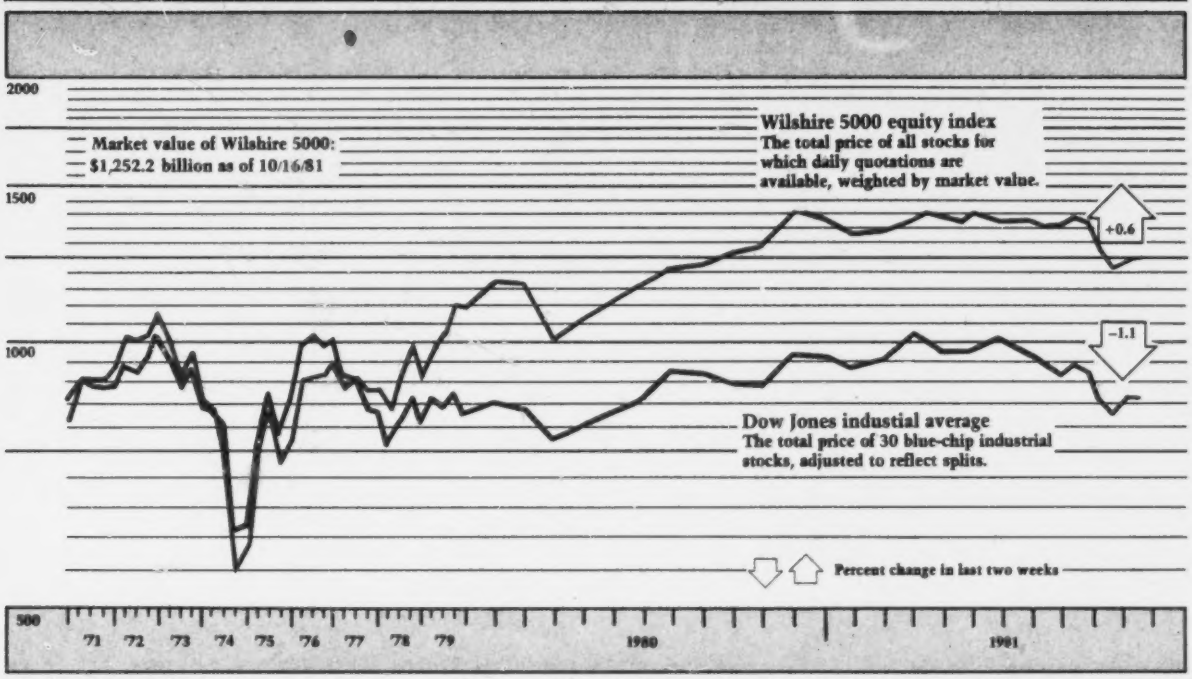
Up-And-Comers class of '81

Company principal business	Return on equity 5-year average	Return on equity latest 12 months	EPS 5-year growth rate	Net sales* (million)	Net income* (million)	Net profit margin*	Book value per share	Debt as % of book	Recent price	EPS last 12 months	P/E ratio
Custom Alloy steel piping	16.0%	12.4%	17%	$15.7	$ 0.97	6.1%	$ 7.05	29%	14¼	$0.88	16.1
Universal Cigar cigars	16.0	17.4	26	36.2	2.65	7.3	11.79	0	15¼	2.06	7.4
National Old Line Ins insurance	15.9	16.4	19	73.3	9.56	13.0	14.47	1	25⅜	2.38	10.6
Roper Industries industrial equipment	15.9	17.2	28	45.8	4.54	9.8	23.61	5	19	4.08	4.6
American Plan insurance	15.8	16.9	106	18.8	0.77	4.0	4.91	17	3⅛	0.83	3.7
Victoria Bankshares banking	15.8	15.1	19	48.0	7.03	14.6	23.05	0	32½	3.50	9.2
Comdata Network finance	15.7	33.8	38	14.3	2.78	19.3	2.10	1	21¼	0.71	30.6
Reliable Life Insurance insurance	15.7	12.9	75	62.7	6.69	10.6	34.35	0	17¼	4.46	3.9
Sigmaform plastic tubing	15.7	13.3	50	16.4	1.73	10.4	6.57	24	13½	0.88	15.3
EPSCO electronics	15.6	10.1	80	16.0	0.94	5.8	8.49	13	8	0.86	9.3
Intercontinental Dynamics precision instruments	15.6	16.2	22	22.1	1.15	5.1	7.53	22	7¼	1.22	5.9
First Connecticut Bancorp banking	15.6	16.8	21	57.4	7.34	12.7	40.30	5	33½	6.79	4.9
IMC Magnetics electrical equipment	15.6	14.5	17	50.0	2.59	5.1	21.51	35	14⅛	3.14	4.5
Petrol Industries oil and gas explor, prod	15.6	38.8	61	2.9	0.89	30.5	1.08	14	16¼	0.42	38.6
Lil' Champ Food Stores convenience food stores	15.6	15.8	17	37.6	1.28	3.4	11.52	15	13	1.83	7.1
Depositors Corp banking	15.6	19.2	21	58.8	5.25	8.9	35.70	32	28⅞	6.86	4.2
Tellabs telecomm equipment	15.4	30.6	96	43.6	6.61	15.1	3.46	20	23¾	1.06	22.4
Data Access Systems computer services	15.4	18.2	17	37.2	4.79	12.8	7.19	71	6¼	1.31	4.7
Timeplex computer equip and serv	15.3	8.3	95	30.4	1.74	5.7	5.42	23	12⅜	0.45	27.4
EH Crump insurance	15.3	14.7	114	28.3	2.86	10.0	5.89	27	12⅞	0.87	14.7
Excelsior Insurance insurance	15.3	5.2	91	22.8	0.77	3.3	13.43	0	16½	0.71	23.2
RAI Research battery equipment	15.2	20.8	29	5.6	0.84	14.9	2.16	31	5¾	0.45	12.7
Anthem Electronics semiconductor distrib	15.2	18.6	117	36.2	2.20	6.0	5.37	0	14	1.00	14.0
Raymond Industries military, heating parts	15.2	12.9	18	43.9	2.02	4.5	12.07	30	18¾	1.56	12.0
Welbilt appliances	15.2	14.4	169	41.1	2.23	5.4	31.68	21	16½	4.58	3.6
Federated Gty Life Ins insurance	15.1	27.1	41	22.5	5.95	26.4	5.94	0	8¼	1.61	5.1
L Luria & Sons retail	15.1	16.4	34	90.6	3.20	3.5	4.62	33	7⅞	0.76	10.3
CB&T Bancshares banking	15.1	20.5	19	54.0	6.31	11.6	11.23	22	19	2.31	8.2
Clausing plastics, machine tools	15.1	15.6	20	75.5	4.25	5.6	10.05	43	12¼	1.57	7.8
Twin City Barge transportation	15.0	18.1	21	80.9	3.46	4.2	11.41	60	17	2.07	8.2
SCI Systems electronics	15.0	14.6	38	59.3	3.10	5.2	6.42	35	19½	0.94	20.7
Supron Energy oil and gas explor, dev	15.0	20.3	40	63.1	20.09	31.7	4.08	35	29⅝	0.83	35.6

*Latest fiscal year.

Source: Standard & Poor's

The Forbes/Wilshire 5000 Review



Closing the ranks. Once again, investors are flirting with over-the-counter stocks—after the late-September minirally of big industrial stocks turned sour. During the last two weeks the NASDAQ index advanced 3.2% while the Dow industrials lost 1.1%. The attraction of glamour stocks is still powerful, too. Look at the investor yardsticks: high volatility, high P/E, high growth and low-yield issues in much greater demand than their conservative counterparts.

The strength of NASDAQ companies helped the broadly based Wilshire index manage a slim 0.6% gain over the last two weeks. And all indicators are in the black on a four-week basis. The NASDAQ shows a 3.2% advance, whereas the Dow has only a 1.9% gain. The Wilshire indicates that the entire market is up almost 3% for the period.

After the last few months, of course, any gain is welcome. But uncertainty remains about whether investors are ready to parlay a few harmless flirtations into a torrid romance. Further evidence of economic softness: weak third-quarter earnings and emerging doubts over Reaganomics. Still, the gloomiest part of the current business cycle could be right now, and a positive market move may be a harbinger of better economic news to come. The worst of the slump is probably over. Today's modest gains, however, are likely to be tested and retested as the averages work their way back to higher levels.

Close-up On The Equity Markets

Performance of five leading indexes

Percent change	Wilshire 5000	Dow Jones industrials	NYSE Composite	ASE Market Value Index	NASDAQ Composite
in last 4 weeks	2.8	1.9	2.8	2.3	3.2
in last 52 weeks	-9.2	-10.9	-8.9	-14.1	-3.5

Stock performance based on five key investor yardsticks

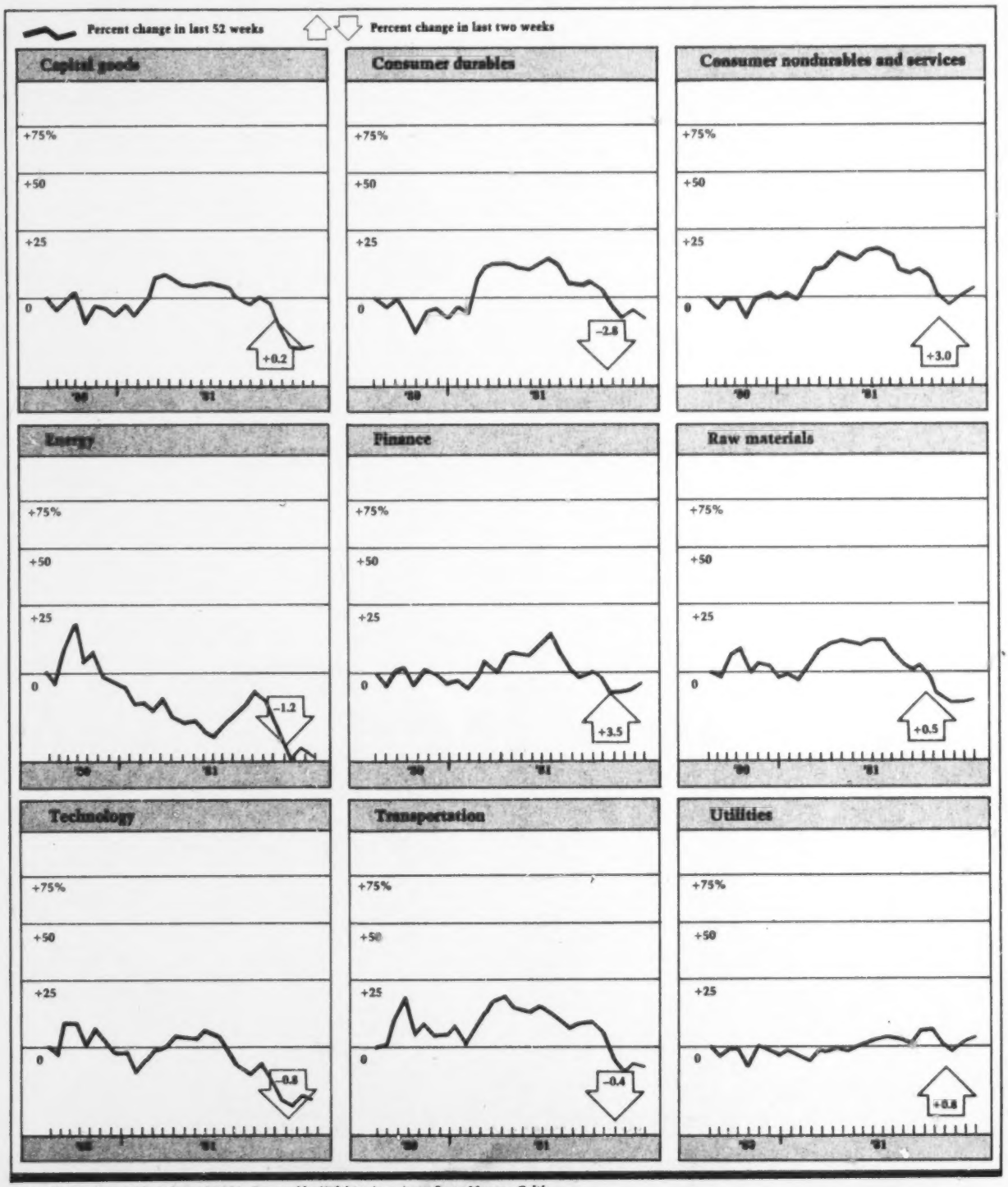
Percent change	Volatility *		P/E multiple		Dividend yield		Growth profile†		Share price	
	high	low	over 25	under 5	over 7.5%	none	high	low	over $40	under $4
in last 4 weeks	5.8	1.4	6.0	2.9	1.5	3.4	5.1	2.0	3.5	3.2
in last 52 weeks	-2.6	6.7	-8.4	1.5	1.6	2.4	-1.9	3.3	-7.4	6.5

* A stock's sensitivity to overall market movement. High-volatility issues have wide price fluctuations; low-volatility issues are more stable.
† A quantitative evaluation of a stock's growth image, determined by Wilshire Associates.

Note: All data for periods ending 10/16/81. Prepared by Wilshire Associates, Santa Monica, Calif.

Finance sets the pace. Thanks to Sears' tender offers for Coldwell, Banker & Co. and Dean Witter Reynolds, the market became bullish on brokerage houses and financial service companies. But dreams for a recovery in the auto industry in 1982 are being dashed by a major relapse in sales. And automakers have had to resort to rebates and discounts even before many of the '82 models have been test-driven. This helped bring down consumer durables by 2.8%.

If Americans can't afford new cars, maybe they'll treat themselves to small-ticket items. Consumer nondurables and services advanced 3%, racking up a 6% gain on a four-week basis. Utilities continue to attract investor attention with their high yields. Their shares offer the potential of capital appreciation in the event of a market rally and a fall in interest rates and, in many cases, new tax incentives related to dividend reinvestment plans.



Note: All data for periods ending 10/16/81. Prepared by Wilshire Associates, Santa Monica, Calif.

The Soviets were looking for a big crop this year after two bad harvests in a row. All they got was more of the same.

HELP! CALL THE GRAIN DOCTOR

By Stanley W. Angrist

When a country suffers a bad crop, it generally bodes ill for the residents of that country. If a country suffers back-to-back crop failures the problem is considerably more serious, and more than simple "belt tightening" is usually required. But what happens to a country that encounters three disastrous crops in a row? The Soviet Union is now in the process of finding the answer to that question.

The U.S. Department of Agriculture estimates the U.S.S.R.'s 1981 grain crop at no more than 180 million tons, 56 million tons below target and 25 million tons under the average annual production during the previous Five-Year-Plan period. The Leslie Analytical Organization recently prepared a review of this year's Soviet crop, which is, in part, a basis for this column.

The grain production goal and need as projected in the new Five-Year Plan was 236 million metric tons. The official Soviet 1981 crop production will not be announced until some time after November, but a recent U.S.S.R. news release estimates the harvest at less than 170 million tons.

There is no doubt that part of the U.S.S.R.'s problem in being unable to consistently bring in a large crop is the weather. However, this year the winter grain crop suffered an unusually low winter-kill—about half of normal. The same hot, dry weather conditions that favored the winter grain harvest have damaged the spring grain crop. A combination of high temperatures, strong winds and low humidity blew across the European U.S.S.R. grain regions once in June and again in July. This combination desiccated the spring crops when the plants were in their most moisture-sensitive stage of growth. Just how damaging such a condition can be is better understood when one considers that the spring grains make up about 75% of the total grain production and that 60% of the spring crop is grown in the European U.S.S.R.

The total Soviet oilseed crop, which includes sunflower seed, cottonseed and soybeans, is estimated at 10.6 million tons—approximately the same as last year. This inability to increase soybean production is part of the problem of increasing livestock production. Both sunflower seeds and cottonseeds yield relatively little high-protein meal (for animal feed) when compared with soybeans.

The Soviets have not increased their soybean production for at least four reasons: 1) difficult climate; 2) poor seed quality; 3) inadequate fertilizers; and 4) agricultural planners' reluctance to commit their best lands to soybeans. Most observers feel that until high-protein meals are integrated into livestock feed rations, the goal of expanding meat supplies will not be realized.

The third poor crop in a row means that the Soviets will be in the world grains market for at least 40 million tons. (Last year from June 1980 to July 1981 they bought 34.5 million tons.) Since the partial U.S. grain embargo that was imposed in January 1980, the U.S.S.R. has sought alternate sources for grain. This year Argentina will sell the Soviets about 14 million tons, Canada will provide about 6 million tons and Australia will sell at least 3 million tons and maybe a lot more.

The numbers tell us that the U.S.S.R. can acquire at least 23 million tons and probably as much as 33 million tons of grain from non-U.S. sources. This implies grain imports from the U.S. of 7 million to 15 million tons—3 million to 5 million in wheat and 4 million to 10 million in coarse grains.

I believe U.S.S.R. purchases could have a bullish impact on wheat and corn. I would try to trade the grains by means of a bull spread by buying December and selling May wheat, with May at a 36-cent premium or more. I would risk no more than 5 cents ($250 per spread) from my entry point. I believe the spread could easily narrow by 10 cents ($500 per spread). The margin on such a spread is $500, while the round-turn commission is about $70. ■

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Three is not a charm

The Soviet Union would like to increase its meat production, but three consecutive bad grain harvests have not allowed the country to make any noticeable progress.

Year	Winter wheat	Spring wheat	Barley	Other* grains	Total grains	Oilseeds	Total† meats	Eggs
	(millions, in metric tons)							(billions)
1976	44.6	42.3	69.5	67.4	223.8	10.7	—	—
1977	52.0	40.2	52.7	50.8	195.7	11.1	14.7	61.7
1978	66.0	54.8	59.3	54.9	235.0	10.9	15.5	64.5
1979	38.4	51.8	47.0	42.0	179.2	11.2	15.5	65.6
1980	49.6	48.5	43.5	47.6	189.2	10.5	15.1	67.7
1981**	50.0	43.0	41.5	45.5	180.0	10.6	15.5	69.5

*Includes rye, oats, corn and other minor grain crops. †Includes all types of meat. **Estimates of the Leslie Analytical Organization.

NOTE

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